

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 307071WO/PRS	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/004405	International filing date (day/month/year) 18/10/2004	(Earliest) Priority Date (day/month/year) 16/10/2003
Applicant  CAMBRIDGE UNIVERSITY TECHNICAL SERVICES LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/004405A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01L51/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 008 505 A (CHO ET AL) 28 December 1999 (1999-12-28)	1, 2, 10, 11, 15, 16, 18, 24, 26, 28, 30
Y	column 4, line 22 - line 32; figure 3	8
X	DE 101 53 656 A1 (INFINEON TECHNOLOGIES AG) 22 May 2003 (2003-05-22)	1-7, 10-14, 16, 18, 23, 24, 28
Y	paragraphs '0009!, '0010!, '0014! - '0016!, '0042!; figure 3e ----- -/--	8

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

31 August 2005

Date of mailing of the international search report

07/09/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Pusch, C

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/004405

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/47045 A (PLASTIC LOGIC LIMITED; SEIKO EPSON CORPORATION; SIRRINGHAUS, HENNING;) 28 June 2001 (2001-06-28)  page 21, line 13 - page 22, line 3; figure 7  -----	1,5,6, 10,11, 13,14, 16,18, 22,26,28
X	WO 01/35500 A (THE UNIVERSITY OF LIVERPOOL; ECCLESTON, WILLIAM; LLOYD, GILES, CHRISTI) 17 May 2001 (2001-05-17) page 11, line 20 - page 12, line 7; figure 7  -----	1,18
X	US 2002/173083 A1 (AVOURIS. PHAEDON ET AL) 21 November 2002 (2002-11-21)  figure 7B  -----	1,2,4, 9-11,13, 15,16, 18,23,24
Y	US 6 344 662 B1 (DIMITRAKOPOULOS CHRISTOS DIMITRIOS ET AL) 5 February 2002 (2002-02-05) column 6, lines 36-42  -----	8

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/004405

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6008505	A	28-12-1999	KR 257072 B1	15-05-2000
			DE 19800919 A1	28-01-1999
			JP 2896365 B2	31-05-1999
			JP 11054762 A	26-02-1999
			US 5869361 A	09-02-1999
DE 10153656	A1	22-05-2003	US 2003092232 A1	15-05-2003
WO 0147045	A	28-06-2001	AU 2015901 A	03-07-2001
			AU 781789 B2	16-06-2005
			AU 2016001 A	03-07-2001
			AU 781584 B2	02-06-2005
			AU 2206601 A	03-07-2001
			AU 779878 B2	17-02-2005
			AU 2206901 A	03-07-2001
			BR 0016643 A	07-01-2003
			BR 0016660 A	25-02-2003
			BR 0016661 A	25-02-2003
			BR 0016670 A	24-06-2003
			CA 2394881 A1	28-06-2001
			CA 2394886 A1	28-06-2001
			CA 2394895 A1	28-06-2001
			CA 2395004 A1	28-06-2001
			CN 1425201 A	18-06-2003
			CN 1425202 A	18-06-2003
			CN 1425203 A	18-06-2003
			CN 1425204 A	18-06-2003
			EP 1243032 A2	25-09-2002
			EP 1243033 A1	25-09-2002
			EP 1243034 A1	25-09-2002
			EP 1243035 A2	25-09-2002
			WO 0147043 A1	28-06-2001
			WO 0146987 A2	28-06-2001
			WO 0147044 A2	28-06-2001
			WO 0147045 A1	28-06-2001
			JP 2003518332 T	03-06-2003
			JP 2003518754 T	10-06-2003
			JP 2003518755 T	10-06-2003
			JP 2003518756 T	10-06-2003
			US 2003059984 A1	27-03-2003
			US 2003059987 A1	27-03-2003
			US 2003059975 A1	27-03-2003
			US 2003060038 A1	27-03-2003
			US 2005026317 A1	03-02-2005
			TW 518760 B	21-01-2003
WO 0135500	A	17-05-2001	AU 1163701 A	06-06-2001
			EP 1240691 A2	18-09-2002
			WO 0135500 A2	17-05-2001
			JP 2003514382 T	15-04-2003
			US 6852995 B1	08-02-2005
US 2002173083	A1	21-11-2002	US 6423583 B1	23-07-2002
			CA 2431064 A1	11-07-2002
			CN 1484865 A	24-03-2004
			EP 1350277 A2	08-10-2003
			WO 02054505 A2	11-07-2002
			JP 2004517489 T	10-06-2004

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/004405

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002173083 A1		TW 523797 B	11-03-2003
US 6344662 B1	05-02-2002	US 6344660 B1	05-02-2002
		US 5981970 A	09-11-1999
		US 6210479 B1	03-04-2001
		JP 2002198539 A	12-07-2002
		JP 3304299 B2	22-07-2002
		JP 10270712 A	09-10-1998
		JP 3418150 B2	16-06-2003
		JP 2000252224 A	14-09-2000
		TW 487967 B	21-05-2002